

## **CLAIMS**

- 1           1.     A structural panel comprising,  
2                   a sheet of material,  
3                   a plurality of elongated ribs formed in said sheet of material, and  
4                   a sealing cap which is adapted to engage a pair of adjacent elongated  
5     ribs.
- 1           2.     The structural panel recited in claim 1 wherein,  
2                   said elongated ribs include a plurality of upright ribs which extend  
3     upwardly from the surface of said sheet, and  
4                   a plurality of partial upright ribs which extend upwardly from the surface of  
5     said sheet.
- 1           3.     The structural panel recited in claim 2 wherein,  
2                   at least two of said upright ribs are disposed adjacent to each other.
- 1           4.     The structural panel recited in claim 2 wherein,  
2                   at least one of said upright ribs and at least one of said partial upright ribs  
3     are disposed adjacent to each other and adjacent to an edge of said sheet.
- 1           5.     The structural panel recited in claim 2 wherein,  
2                   each of said upright ribs includes a first surface which is normal to the  
3     surface of said sheet, and  
4                   a second surface which is disposed at an angle to said first surface  
5     thereof.

1           6.     The structural panel recited in claim 5 wherein,  
2                   a pair of said upright ribs is formed on said sheet with the first surfaces  
3 adjacent to each other to form a trough therebetween.

1           7.     The structural panel recited in claim 5 wherein,  
2                   each of said partial upright ribs includes a first surface which is normal to  
3 the surface of said sheet.

1           8.     The structural panel recited in claim 7 wherein,  
2                   a partial upright rib and an upright rib are formed in said sheet with the first  
3 surfaces adjacent to each other to form a trough therebetween.

1           9.     The structural panel recited in claim 1 wherein,  
2                   said sealing cap is a generally inverted U-shaped member which  
3 selectively engages a pair of elongated ribs.

1           10.    The structural panel recited in claim 1 wherein,  
2                   said elongated ribs are integrally formed in said sheet of material.

1           11.    The structural panel recited in claim 1 wherein,  
2                   said sheet of material is substantially waterproof.

1           12.    The structural panel recited in claim 5 wherein,  
2                   each of said upright ribs includes at least one groove existing along said  
3 second surface substantially parallel to the surface of said sheet.

1           13.    The structural panel recited in claim 12 wherein,  
2                   said sealing cap includes a lip at each edge thereof to engage the groove  
3 in said upright ribs.

1           14.    The structural panel recited in claim 4 wherein,  
2                   the upright rib and the partial upright rib disposed adjacent to each other  
3 and adjacent to an edge of said sheet are adapted to overlie and engage the upright rib  
4 and the partial upright rib disposed adjacent to each other and adjacent to an edge of a  
5 second substantially identical structural panel.

1           15.    The structural panel recited in claim 5 wherein,  
2                   the angle between said second surface and said first surface is  
3 approximately 15°.

1           16.    The structural panel recited in claim 1 wherein,  
2                   a plurality of low profile ridges formed in said sheet of material to provide  
3 longitudinal strength for the panel.

1           17.    The structural panel recited in claim 9 wherein,  
2                   each of said pair of elongated ribs comprises upright ribs which form a  
3 trough therebetween which trough is covered by said sealing cap.

1           18.    The structural panel recited in claim 17 wherein,  
2                   said trough is adapted to selectively receive fasteners for fastening said  
3 structural panel to an underlying surface.